Outdoor Traffic Sensor

WiFi and Bluetooth detection for real-time travel time, dwell time and flow measurement.

How it works

The BlipTrack solution works by placing sensors at strategic points along roads, transit networks and public places. The sensors detect Bluetooth or WiFi devices, found in mobile phones and in-car audio and communication systems. When a device passes the sensors, its unique ID, called a MAC address, is recorded, encrypted and time-stamped.

By re-identifying the device from multiple sensors, specific and accurate statistical information, such as the travel times, average speeds, dwell times and movement patterns become available, both in real-time and historically.

Sensor mounting

The maintenance-free sensors are easily mounted on existing road structures and poles without disrupting traffic. Once mounted, a GPS receiver ensures, automatic and accurate location data. The sensors are remotely configured and updated by BLIP Systems. Live sensor monitoring with automated alarms and recovery, handles issues before they escalate into problems.

Power connectivity

The sensors are either connected to a local permanent or intermittent power supply, such as street lighting or solar power, or to an independent power source.

Measurement capabilities

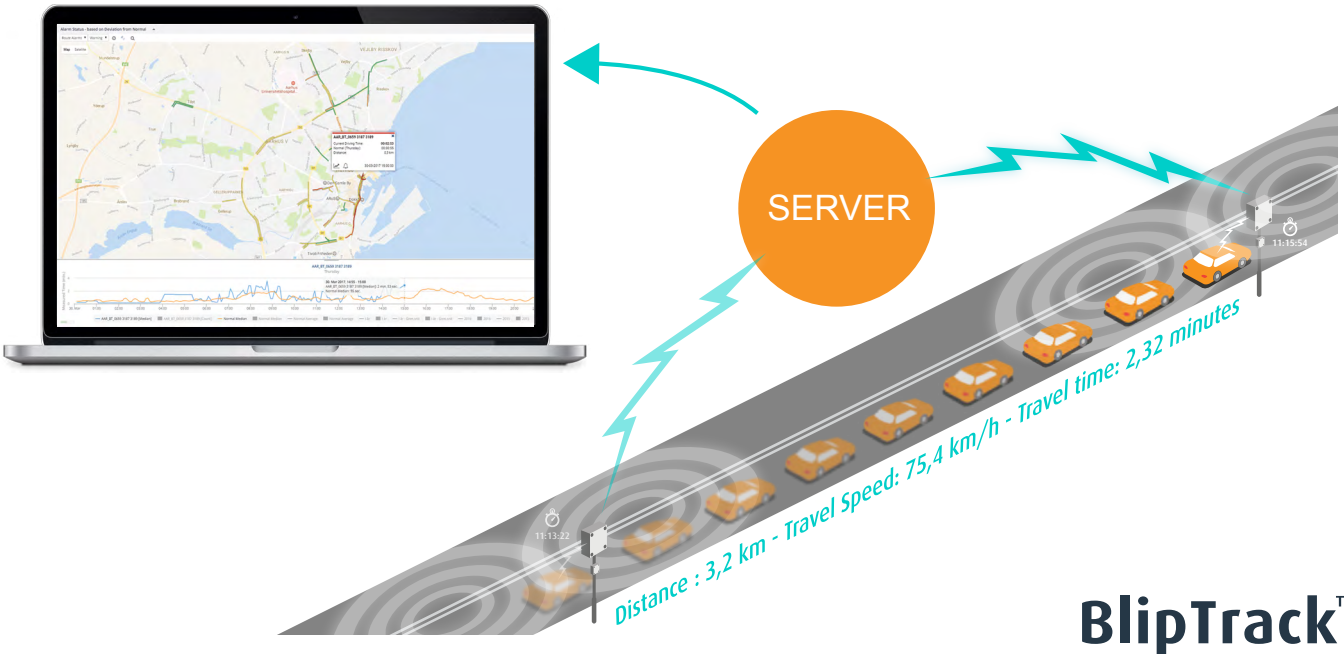
The sensor has built-in directional antennas, which enables more accurate positioning of detected devices, in a wide coverage area. The lightweight sensors measure 24/7, in all weather conditions, such as snow, heavy rain and fog, in all traffic conditions, such as slow moving traffic, and in multiple directions and lanes simultaneously. In addition, the sensors are able to measure segments with multiple flows, such as parallel train tracks, bus lanes, bike lanes and more.

Data transfer

The raw data from the sensors is transmitted in real-time, via Ethernet or mobile broadband, to a secure data warehouse. At network connection loss, data caching is enabled.

Combined Bluetooth and Wi-Fi detection

By combining the Wi-Fi sensor and Bluetooth sensors, sample rates are significantly improved and the combined solution is able to detect and collect data from approximately 50% of all mobile devices in areas with slow moving traffic, bicycles and pedestrians. This proportion will only increase as smartphone and hands-free installations become more prevalent.

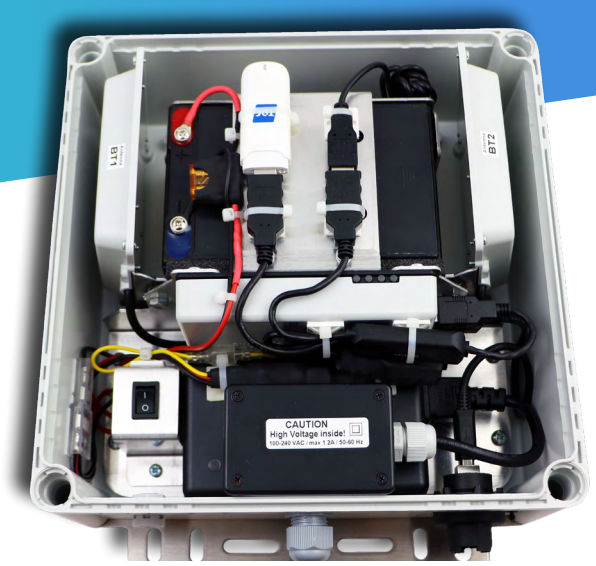


BlipTrack™

BLIP Systems A/S · Hækken 2 · DK-9310 Vodskov · +45 98258200 · sales@blipsystems.com · blipsystems.com · veovo.com

Outdoor Traffic Sensor

Specifications



Sensor Specifications

Item number:
BTTS-12V
BTTS-230V
BTTS-230V-BAT
BTTS-230V-RADAR
BTTS-230V-BAT-WF

Exterior Description
Size: 278 x 278 x 130 mm (10.94 x 10.94 x 5.11 in)
Weight: 3000g (6.61 Lbs) - With battery 7600g (16.75 Lbs)
Color: Light gray polycarbonate
Temperature range of material: -40°C (-40°F) - +80°C (176°F)

Ambient Temperatures
Max: +50°C (122°F) / Min: -10°C (14°F)

Power (model BTTS-12V)
Supply: 11,5 - 16,0 VDC, max 1A
Consumption: Average < 4,0W (w/ Wi-Fi: < 6W)
External battery low cut-off voltage: 10,3 - 10,7 VDC

Power (model BTTS-230V-BAT)
Supply: 100 - 240 VAC, 50 - 60Hz, max 1.2A
Power consumption: Max 75W when charging
Consumption: Average < 9W (w/ Wi-Fi: < 11W)
Battery Type: 12V/12ah lead crystal with an expected lifetime of 5-7 years. Operating time on fully charged battery: Up to 1,5 days.

Power (model BTTS-230V)
Supply: 100 - 240 VAC, 50 - 60Hz, max 0.31A (BTTS-230V)
Consumption: Average < 4W (w/ Wi-Fi: < 6W)

Radio Characteristics
Bluetooth 2.1 + EDR (Class 1)
Frequency band: 2.402 - 2.480 GHz

Connectivity
Mobile broadband or Power over Ethernet (PoE 802.3af 48V)

GPS Receiver
High sensitive SiRF Star 4 GPS

Radio Interface
2 x class 1 radio (directional antennas)
1 x class 2 radio (omni directional antenna)
Placement: Opposite 180°
Beam width: 70°/70°
Front/back ratio: 23dB

WiFi Sensor (BTTS-WF)

Exterior Description
Size: 85 x 82 x 60 mm (3.34 x 3.22 x 2.36 in)
Weight: 360 g (0,79 Lbs)
Color: Light gray polycarbonate
Temperature range of material: -40°C (-40°F) - +80°C(176°F)

Ambient Temperatures
Max: +50°C (122°F) / Min: -10°C (14°F)

Power
Supplied from USB connection

Antenna Details
2 x 5 dBi Directional RHCP antennas

Wi-Fi Technical Data
2 x Wi-Fi receiving radios

Interface for Bluetooth sensor
Water resistant USB connection (IP68)

Coverage Area
Placement: Opposite 180°
Beam width: 70°/70°
Front/Back ratio: 10dB

Frequency Band
2.4 GHz